

PATENT COOPERATION TREATY

10-08-2003

From the INTERNATIONAL SEARCHING AUTHORITY

To: AVI LOWY
GLUCKSMAN-LOWY
P.O. BOX 6202
HAIFA, 31061
ISREAL

PCT**NOTIFICATION OF TRANSMITTAL OF
THE INTERNATIONAL SEARCH REPORT
OR THE DECLARATION**

(PCT Rule 44.1)

Date of Mailing
(day/month/year)

16 JUL 2003

Applicant's or agent's file reference

2229

FOR FURTHER ACTION See paragraphs 1 and 4 below

International application No.

PCT/IL02/00665

International filing date
(day/month/year)

15 AUGUST 2002

Applicant

STORAGE NETWORKING TECHNOLOGIES

1. ☒ The applicant is hereby notified that the international search report has been established and is transmitted herewith.

Filing of amendments and statement under Article 19:

The applicant is entitled, if he so wishes, to amend the claims of the international application (see Rule 46):

When? The time limit for filing such amendments is normally two months from the date of transmittal of the international search report.

Where? Directly to the International Bureau of WIPO, 34 chemin des Colombettes
1211 Geneva 20, Switzerland, Facsimile No.: (41-22) 740.14.35

For more detailed instructions, see the notes on the accompanying sheet.

2. ☐ The applicant is hereby notified that no international search report will be established and that the declaration under Article 17(2)(a) to that effect is transmitted herewith.
3. ☐ With regard to the protest against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:
- ☐ the protest together with the decision thereon has been transmitted to the International Bureau together with the applicant's request to forward the texts of both the protest and the decision thereon to the designated Offices.
- ☐ no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.

4. Reminders

Shortly after 18 months from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau as provided in rules 90bis.1 and 90bis.3, respectively, before the completion of the technical preparations for international publication.

Within 19 months from the priority date, but only in respect of some designated Offices, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase until 30 months from the priority date (in some Offices even later); otherwise the applicant must, within 20 months from the priority date, perform the prescribed acts for entry into the national phase before those designated Offices.

In respect of other designated Offices, the time limit of 30 months (or later) will apply even if no demand is filed within 19 months.

See the Annex to Form PCT/IB/301 and, for details about the applicable time limits, Office by Office, see the *PCT Applicant's Guide*, Volume II, National Chapters and the WIPO Internet site.

Name and mailing address of the ISA/US

Commissioner of Patents and Trademarks
Box PCT
Washington, D.C. 20231

Facsimile No. (703) 305-3820

Authorized officer

HIEP T. NGUYEN

Telephone No. (703) 305-3822

Box III TEXT OF THE ABSTRACT (Continuation of item 5 of the first sheet)

The technical features mentioned in the abstract do not include a reference sign between parentheses (PCT Rule 8.1(d)).

NEW ABSTRACT

A Method and a system for simultaneously mirroring of one or many data objects from one or many local storage devices (SDL) to one or many remote storage devices (SDRx). The one or many data objects may be used during mirroring. A mirroring functionality consists in the application of a succession of freeze and copy procedures repeated sequentially in successive mirroring cycles. Only the last local updated version is saved in the remote storage device(s). Each new updated version overwrites the previous version. Mirroring is performed asynchronously in the background by freezing and copying successive discrete blocks of data. The mirroring functionality is operable to perform more than one mirroring operation simultaneously as well as simultaneous cross-mirroring.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/IL02/00665

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : G06F 12/16

US CL : 711/162

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 711/162; 714/6; 707/204

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
NoneElectronic data base consulted during the international search (name of data base and, where practicable, search terms used)
EAST**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 5,671,350 A (WOOD) 23 September 1997, col. 1, lines 45-62.	1-48
Y	US 5,852,715 A (RAZ et al) 22 December 1998, col. 2, lines 40-67; col. 13, lines 18-29; and col. 14, lines 34-48].	1-48
Y,P	US 6,363,462 B1 (BERGSTEN) 26 March 2002; figure 1; col. 19, lines 43-50; col. 21, lines 40-47; and col. 26, lines 6-23.	1-48
Y,P	US 6,278,566 B1 (BLUMENAU) 21 August 2001, figure 4; col. 7, lines 45-62.	1-48
Y,P	US 6,308,283 B1 (GALIPEAU et al) 23 October 2001, abstract, figures 2 and 5.	1-48

☒ Further documents are listed in the continuation of Box C. ☐ See patent family annex.

* Special categories of cited documents: "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier document published on or after the international filing date "I" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed		"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art "A" document member of the same patent family	
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Date of the actual completion of the international search

26 JUNE 2003

Date of mailing of the international search report

16 JUL 2003

Name and mailing address of the ISA/US
Commissioner of Patents and Trademarks
Box PCT
Washington, D.C. 20231

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/IL02/00665

(continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A,P	US 6,308,284 B1 (LECRONE et al) 23 October 2001, see the entire document.	1-48
Y,E	US 6,499,908 B1 (KAMVYSSELIS et al) 17 December 2002, col. 1, lines 49-56.	1-48
A,E	US 6,549,992 B1 (ARMANGAU et al) 15 April 2003, see the entire document.	1-48